# **Case Report**

# Temporomandibular Joint Dysfunction as a Cause of Facial Pain- A Case Report

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Received: 10 June 2019; Accepted: 21 June 2019; Published: 24 June 2019

# Abstract

Temporomandibular joint dysfunction (TMJD) is one of the rare causes of facial pain. Its' onset is often insidious. It can be a difficult condition to manage as most sufferers tend to have a chronic clinical course. This case report will look at a young man with TMJD and what options are available for its' management.

Keywords: Temporomandibular joint dysfunction; Facial pain; Quality of life; Insidious; Management options

# **1. Introduction**

Facial pain can have many causes. This among other includes temporomandibular joint dysfunction (TMJD). Temporomandibular joint (TMJ) helps to connect the jaw to the skull. TMJD is associated with pain and functional disabilities [1]. The underlying pathophysiologic mechanism includes myofascial pain dysfunction (MPD) syndrome, internal derangement and degenerative joint disease [2]. Common symptoms associated with TMJD include a dull ache on mastication, radiation of pain to the ear and jaw, jaw locking, ear clicking, headache, bruxism, neck, shoulder or back pain and history of facial trauma [3]. Physical examination remains an important part of diagnosis and may reveal the following features such as limitation of jaw opening, swelling, TMJ clicking or popping, tenderness, joint crepitus and the lateral deviation of the mandible [3]. This case report will look at a young man who has been having this problem for many years and what management options that have been offered to him.

### 2. Case Report

A 20-years-old man presents with persistent pain over his left side of his face for the past three years. He has been diagnosed with Temporomandibular joint dysfunction (TMJD) for the same duration of time. Besides pain, he also has frequent jaw locking, especially when laughing loudly or talking for a long period of time. Physical examination revealed mild tenderness over the left TMJ with presence of crepitus and popping sound. So far, he has been offered

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analgesics and cold pack application with not much of a relief. He was given other management options including use of muscle relaxants, splints and surgery. He opted for the use of muscle relaxants and splints. He was given a month appointment for review.

# **3. Discussion**

Common differential diagnosis includes dental infection, temporal arteritis, mandible dislocation or fracture, myopathies and trigeminal neuralgias. Usually, no investigation is necessary, but may include blood tests such as full blood count, serum uric acid, creatinine kinase, calcium, phosphate and alkaline phosphatase levels and erythrocyte sedimentation rate and imaging studies such as plain radiographs, computed tomography and magnetic resonance imaging which may show features such as articular disk displacement, presence of osteoarthritis or fracture. Treatment options are aplenty and ranges from analgesics, muscle relaxants to use of heat or cold packs. More severe cases will need other modes of treatment, including transcutaneous electrical nerve stimulation (TENS), ultrasound therapy trigger point injections, radio wave therapy and low level laser therapy [4]. Severe intractable symptoms will require surgery such as arthrocentesis, arthroscopy and open joint surgery [4]. A research of 235 patients over 5 years showed one third of patients had completely resolved pain, one third had recurrent of remission and recurrences and one third had continuous pain symptoms over the 5 years [5]. This once again reiterates the chronicity and difficulty in treating this condition along with other rheumatological disorders like rheumatoid arthritis [6, 7].

### 4. Conclusion

In conclusion, TMJD remains a difficult condition to manage. However, treatment options are aplenty and management should be tailored to the individual patient for the maximum treatment benefit.

# Acknowledgement

The author would like to thank the patient for his consent in publishing this case report.

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**Citation:** Navin Kumar Devaraj. Temporomandibular Joint Dysfunction as a Cause of Facial Pain-A Case Report. Fortune Journal of Rheumatology 1 (2019): 009-011.



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